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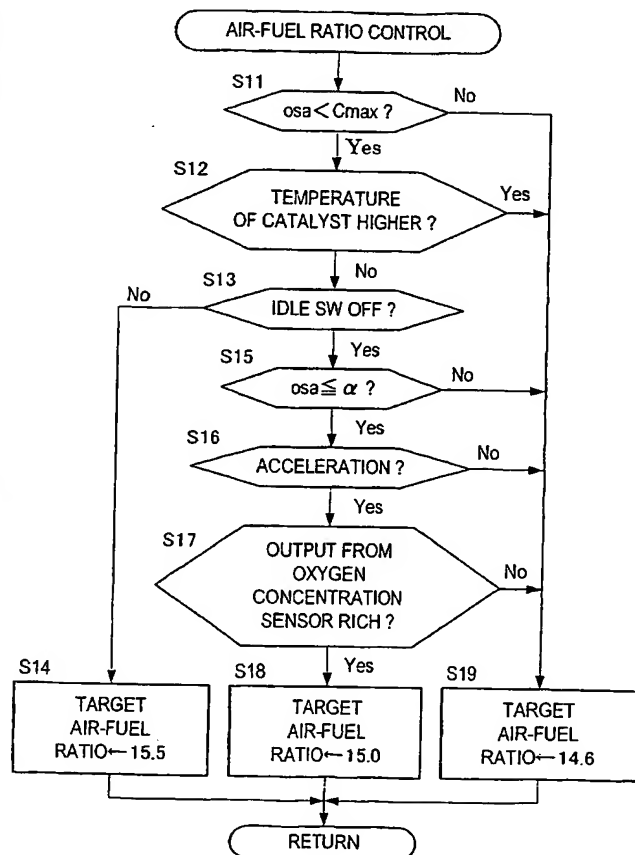
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(54) Title: **AIR-FUEL RATIO CONTROL APPARATUS OF INTERNAL COMBUSTION ENGINE**



(57) Abstract: An air-fuel ratio control apparatus of an internal combustion engine includes first and second catalysts 10 and 12, first air-fuel ratio acquiring means 8 provided upstream of the first catalyst, for acquiring an air-fuel ratio of exhaust gas; second air-fuel ratio acquiring means 11 for acquiring an air-fuel ratio of the exhaust gas flowing into the second catalyst, and air-fuel ratio controlling means 13 for controlling an air-fuel ratio according to the air-fuel ratios acquired by the first and second air-fuel ratio acquiring means, and the air-fuel ratio controlling means is provided with lean control means 13 for controlling an air-fuel ratio until the second catalyst becomes lean after completion of a fuel quantity increasing operation of the engine, and intermediate lean control means 13 for performing control to change the air-fuel ratio to a lean air-fuel ratio within the range enough to make the first catalyst lean and not enough to make the second catalyst lean, between the fuel quantity increasing operation and the air-fuel ratio control by the lean control means.

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